Contents Lists Available at: https://journal2.unusa.ac.id/

Medical Technology and Public Health Journal

Journal Home Page: https://journal2.unusa.ac.id/index.php/MTPHJ

Research Article

Identification of Factors Influencing Health Workers' Resistance to Patient Safety Culture at Hospital X Surabaya

Edho Yulianto Suwardi[1]* | *Nyoman Anita Damayanti*[2]

[1]*Department of Policy and Health Administration Student, Faculty of Public Health, Universitas Airlangga Surabaya, Surabaya, East Java, Indonesia.*
[2]*Department of policy and health administration, Faculty of Public Health, Universitas Airlangga, Surabaya, Surabaya, East Java, Indonesia.*

***Corresponding Author**:
Edho Yulianto Suwardi. Department of Policy and Health Administration Student, Faculty of Public Health, Universitas Airlangga Surabaya, Surabaya, East Java, Indonesia
Email: ysedho@gmail.com

***DOI:** 10.33086/mtphj.v10i1.7120*

Article History:
Received, August 12th, 2025
Revised, September 27th, 2025
Accepted, October 07th, 2025
Available Online: March 1st, 2026

Please cite this article as:
Suwardi, Edho Yulianto & Nyoman Anita Damayanti, "Identification of Factors Influencing Health Workers' Resistance to Patient Safety Culture at Hospital X Surabaya" Register: Medical Technology and Public Health Journal, Vol. 10, No. 1, pp. 58-65, 2026

ABSTRACT

Implementing patient safety culture is essential to ensuring the accuracy and quality of healthcare services in hospitals. When not effectively enforced, a deficiency in safety culture can lead to significant adverse outcomes not only for patients but also for healthcare workers and the institutions involved. Data from Hospital X in Surabaya indicated that 56 patient safety incidents were reported in 2024, including 23 near-miss incidents, 28 non-injury incidents, and 5 unexpected incidents. This study aims to identify the factors influencing health workers' resistance to patient safety culture at Hospital X in Surabaya through a survey. A quantitative research design employing a cross-sectional approach was employed, with data collected from 267 respondents and analyzed using linear regression. The hospital's implementation of patient safety culture was perceived to be inadequate in several areas: (1) Shift Handover and Information Exchange; (2) Disclosure of Information; (3) Staff Arrangement and Work Rhythm; (4) Response to Errors; and (5) Patient Safety Event Reporting. Conversely, the aspects perceived positively included: (1) Support for Health Service Facilities; (2) Teamwork; (3) Direct Supervisor Support; (4) Communication Errors; and (5) Organizational Learning and Continuous Improvement. One significant factor identified as influencing this outcome is the use of patient safety reporting as a means of organizational learning (p-value 0.02). Enhancing organizational learning, despite perceptions of favorable aspects, could reduce staff resistance to adopting a more robust patient safety culture.

***Keywords:** Patient safety culture, health worker, resistance*

INTRODUCTION

Establishing a patient safety culture is crucial to ensuring the accuracy of patient services in hospitals (Wianti et al., 2021). When a safety culture is not effectively implemented, it can lead to significant losses for patients, healthcare workers, and healthcare institutions alike. It is estimated that the financial impact of patient safety incidents reaches trillions of US dollars, hindering global economic growth by approximately 0.70% annually(Lachman et al., 2022)

Advancements in technology and health science have prompted changes in the healthcare system, particularly regarding the safety culture for hospital patients (Jacobus et al., 2022). For instance, the Regulation of the Minister of Health of the Republic of Indonesia number 24 of 2022

mandates that all healthcare facilities implement electronic medical records by December 31st, 2023 (Permenkes No. 24, 2022). This regulation elicited mixed reactions, as implementing electronic medical records can be time-consuming, costly, and challenging, especially during the socialization process for healthcare workers (Kesatria Pratama, 2021). The transition from traditional medical records to electronic systems is likely to affect hospital patient safety culture, particularly regarding access to medical records. This transformation also necessitates an adaptation period, during which healthcare workers may experience divided attention, thereby increasing the potential for errors (Aisy, 2019).

Patient Safety Incidents (*Insiden Keselamatan Pasien/*IKP) remain a significant challenge in hospitals. These institutions provide various services that inherently carry risks to patient safety(Maesa et al., 2024). A patient safety system is established in hospitals to enhance patient care safety. This system includes risk assessment, identification and management of patient risks, incident reporting and analysis, the capacity to learn from incidents and implement necessary follow-ups, and the development of solutions to minimize risks. The government has also taken steps to prioritize patient safety within hospital services(Wianti et al., 2021).

The management of patient safety culture refers to instruments developed by the Agency for Healthcare Research and Quality (AHRQ) (Marselina, 2023). Key steps in this management include: 1) Openness of communication; 2) Feedback and communication regarding errors; 3) Frequency of reported incidents; 4) Handover and transition processes; 5) Management support for patient safety; 6) A non-punitive response to errors; 7) Organizational learning aimed at continuous improvement; 8) The overall perception of patient safety; 9) Staffing levels; 10) Supervisors' and managers' expectations and actions that promote patient safety; 11) Cross-unit teamwork; and 12) Teamwork within individual units. The successful implementation of a patient safety culture is essential for delivering quality nursing services (Adella Dwi Ayu Ningsih et al., 2023). Quality healthcare services are assessed not only by the completeness of technology, the sophistication of infrastructure, and the professionalism of healthcare workers, but also by the effectiveness of the processes and outcomes of the services provided (Wulandari et al., 2023). Various factors, including perceptions, communication, and occupational safety implementation, as well as knowledge, organization, and teamwork, significantly influence employees' roles in cultivating a patient safety culture (Rachmawati, 2011). Errors in healthcare often stem from healthcare workers' negligence, which may result from distractions, fatigue, or inattention (Utami et al., 2023). High work pressure can lead to fatigue, which can contribute to carelessness (Wahyuda O et al., 2024). able 1 presents the incidence of patient safety incidents at Hospital X in Surabaya during 2024.

Table 1. Patient Safety Incidents at Hospital X in Surabaya in 2024

No	Period	Number of Incidents
1	Quarter 1	21
2	Quarter 2	15
3	Quarter 3	14
4	Quarter 4	6
	Sum	56

Table 1 presents 56 Patient Safety Incidents that occurred in 2024. These incidents, classified as Patient Safety Incidents (IKP), can be grouped into several categories: Near Miss Incidents (Kejadian Nyaris Cedera/KNC), Non-Injury Incidents (Kejadian Tidak Cedera/KTC), and

Unexpected Events (Kejadian Tidak Diharapkan/KTD) (Sari et al., 2024). Based on the incidence rate, the Patient Safety Incidents at Hospital X are categorized as shown in Table 2.

Table 2. Categorization of Patient Safety Incidents at Hospital X Surabaya in 2024

No	Type of Occurrence	Sum	Percentage
1	KNC	23	41,1%
2	KTC	28	50,0%
3	KTD	5	8,9%
	Sum	56	100,0%

According to Table 2, the predominant type of Patient Safety Incident at Hospital X in Surabaya was the Non-Injury Incident, accounting for 50.00% of all incidents. Conversely, the least frequent type was the Unexpected Event, with only 5 incidents reported, representing 8.90%.

The resistance of healthcare workers to adapting to a culture of patient safety can stem from a variety of factors (DuBose & May, 2020). Analysis of secondary data regarding patient safety incident reporting at Hospital X in Surabaya in 2024 revealed that 23.00% of the 248 medical staff had never reported any known safety incident. Contributing factors included: 20.00% expressed fear of being blamed for reporting; another 20.00% feared repercussions for reporting irregularities; 24.00% were concerned about potential consequences if the perpetrator was their superior; and a significant 70.00% felt they were not allowed to ask questions. These results indicate that addressing resistance to an improved safety culture should focus on these underlying factors. This study aims to identify the elements of patient safety culture that influence healthcare workers' resistance at Hospital X in Surabaya.

MATERIAL AND METHODS

The secondary data collection for the patient safety culture questionnaire was conducted at Hospital X in Surabaya. The study population consisted of 804 individuals. To determine the minimum sample size, the Slovin formula was used, yielding a total sample of 267 participants. Sample selection was performed using simple random sampling. The questionnaire comprised 32 Likert-scale questions (1-5) covering 10 dimensions of patient safety factors in hospitals. Data analysis was carried out using Linear Regression, a statistical method for modeling the relationship between one or more independent variables (X) and a response variable (Y) (Syilfi et al., 2012). A variable is considered to be perceived positively if the average score is ≥4, and negatively if it is <4. Additionally, a question was designed to assess overall implementation perception, using a 1-100 scale. A patient safety culture is considered well-implemented when the assessment score is 80 or higher, while scores below 80 are considered poorly implemented.

RESULTS AND DISCUSSION

Patient Safety Culture Factors

The culture of patient safety encompasses the values, beliefs, and norms that hospital staff embrace to enhance patient safety. This culture is designed to prevent medical errors and avoidable injuries (Ghofar et al., 2021). It reflects the extent to which the organizational culture supports and promotes patient safety (Aisy, 2019). The patient safety culture comprises the values, beliefs, and norms held by healthcare practitioners and other staff throughout the

organization that shape their actions and behaviors (Heriyati et al., 2019).

Table 3. Assessment of Patient Safety Culture Factors at Hospital X Surabaya

Number	Factors	Sum	Interpretation
1	Shift Handover and Information Exchange	3,67	Poor
2	Support for Health Service Facilities	4,68	Good
3	Organizational Learning, Continuous Improvement	4,27	Good
4	Patient Safety Event Reporting	3,91	Poor
5	Response to Errors	3,86	Poor
6	Staff Arrangement and Work Rythm	3,84	Poor
7	Support of Executives, Managers or Medical Personnel for Patient Safety	4,45	Good
8	Teamwork	4,62	Good
9	Communication Errors	4,44	Good
10	Disclosure of Information	3,81	Poor

Table 3 presents the results of the assessment of factors perceived as positive and negative. The factors rated as good, listed from highest to lowest, are as follows: (1) Support for Health Service Facilities; (2) Teamwork; (3) Support from Direct Supervisors; (4) Communication Errors; and (5) Organizational Learning and Continuous Improvement. Conversely, the factors seen as poor, ranked from worst to least poor, include: (1) Shift Handover and Information Exchange; (2) Disclosure of Information; (3) Staff Arrangement and Work Rhythm; (4) Response to Errors; and (5) Patient Safety Event Reporting. Overall, an analysis of perceptions of patient safety implementation is necessary to examine its correlation with the ten factors mentioned above. Respondents rated the implementation on a scale from 1 to 100, with 100 signifying a perception of perfect implementation in the current state.

Table 4. Patient Safety Overall Implementation Perception at Hospital X Surabaya

Number	Variable	Sum	Interpretation
1	Patient Safety Overall Assessment	79,05	Poor

Table 4 reveals that the perception of the patient safety culture at Hospital X in Surabaya is categorized as poor. To identify factors influencing the overall evaluation of patient safety implementation, a linear regression analysis was performed.

Analysis of the Influence of Patient Safety Cultural Factors on Assessment

The patient safety culture encompasses the values, beliefs, and norms upheld by the entire organization at Hospital X in Surabaya. This culture significantly shapes the actions and behaviors of each healthcare worker. The findings regarding the impact of patient safety culture on patient safety assessment at Hospital X are presented in Table 5.

Table 5. Test on the Influence of Patient Safety Cultural Factors on the Patient Safety Assessment of Hospital X in Surabaya

Number	Variable	Sig.	Interpretation
1	Shift Handover and Information Exchange	0,77	No Effect
2	Facility Support	0,69	No Effect
3	Organizational Learning	0,02	Influential

4	Incident Reporting	0,15	No Effect
5	Response to Errors	0,42	No Effect
6	Staff Arrangement and Work Rythm	0,88	No Effect
7	Management Support	0,69	No Effect
8	Teamwork	0,86	No Effect
9	Communication Errors	0,54	No Effect
10	Disclosure of Information	0,34	No Effect

The study's findings indicate that a key factor affecting the evaluation of patient safety culture implementation is the lack of organizational learning opportunities. Organizational learning plays a vital role in enabling an organization to enhance its practices. Collaboration among interconnected departments is essential for fostering continuous innovation (Martínez-Costa et al., 2019). In healthcare, organizational learning is critical for effective information transfer during handoffs, ultimately leading to safer patient care. One study highlighted that perceived teamwork within a healthcare organization is the most significant predictor of successful information transfer. Additional organizational learning factors, such as perceptions of management support and the organization's commitment to continuous learning, also significantly influence perceptions of handoff effectiveness (Richter et al., 2016).

Factors That Facilitate Change in Patient Safety Culture

A review highlights several factors that serve as positive catalysts for change within a unit. These include routines that promote the implementation of beneficial changes (Karmila et al., 2023), as well as the role of strong leadership commitment and the managerial qualifications of a supervisor, which are essential for advancing patient safety (Sulastri et al, 2020). dditionally, job satisfaction, as outlined in two-factor motivation theory, can motivate individuals to enhance their work engagement and foster a positive attitude towards meaningful change (Andriani & Widiawati, 2017).

The factors influencing resistance to change are not merely the direct opposites of the driving factors previously mentioned. Understanding the elements that contribute to resistance is a vital asset for leaders, enabling them to anticipate challenges and address existing resistance (Karmila et al., 2023). Mapping out and identifying the factors that positively or negatively impact resistance to change is an essential step to ensure that the change process runs smoothly and aligns with organizational objectives. Since influencing factors and organizational culture can vary significantly, the role of a manager or an external change agent becomes critical. An agent of change is instrumental in identifying and prioritizing obstacles to minimize resistance (Pujilestari et al., 2016). Utilizing Lewin's Force Field Analysis framework (1951), as referenced by (Bozak, 2003), an agent of change can articulate the positive driving forces and the restraining forces pertinent to the specific unit or organization being changed and in the case of Hospital X in Surabaya, analysis of secondary data revealed that approximately 23.00% of the surveyed medical staff did not report issues primarily due to a lack of trust and fear of repercussions. Addressing these two primary factors of resistance is crucial for the agent of change, particularly the manager responsible for medical affairs (Heriyati et al., 2019).

Additional information regarding resistance obstacles includes the clarity of the organization's vision, the methods employed by management to reach consensus for implementing changes, the communication strategies utilized during the change process, and the

individual circumstances of staff members (such as their perceptions, skills, and the culture within their work unit), which were not captured in the survey (Sibarani, 2020). A more thorough assessment of these issues is necessary to identify the primary factors contributing to resistance at Hospital X in Surabaya. Additionally, further mapping of driving forces and available resources should be conducted to mitigate resistance (Cheraghi et al., 2023).

CONCLUSION AND SUGGESTION

Conclusion

The implementation of patient safety culture at Hospital X in Surabaya is viewed unfavorably, particularly regarding shift handover, information exchange, incident reporting, responsiveness to errors, and staff scheduling. Conversely, aspects that are perceived positively include management support, organizational learning, direct leadership backing, and teamwork. Overall, the patient safety culture at Hospital X is regarded as inadequate. Resistance is attributed to various factors, notably the hospital's inability to utilize patient safety incidents as opportunities for organizational learning. Although seemingly contradictory, the favorable perception of organizational learning may suggest a disconnect between perception and actual implementation.

ACKNOWLEDGEMENT

The authors would like to thank all individuals at Hospital X in Surabaya who contributed to the success of this study and the writing of this article.

CONFLICT OF INTEREST

The researcher stated that there was no *Conflict Of Interest* with the respondents and the place where this study was conducted.

REFERENCES

Adella Dwi Ayu Ningsih, Ira Marti Ayu, Putri Handayani, Devi Angeliana Kusumaningtiar, & Ahmad Irfandi. (2023). Gambaran Budaya Keselamatan Pasien Pada Perawat Di Rumah Sakit X. Bekasi Tahun 2022. *MOTORIK Jurnal Ilmu Kesehatan*, *18*(2), 29–47. https://doi.org/10.61902/motorik.v18i2.933

Aisy, R. D. (2019). Mengoptimalkan Budaya Keselamatan Pasien Di Rumah Sakit. *Budaya Keselamatan Pasien Di Rumah Sakit*. https://www.researchgate.net/publication/346385826_pentingnya_budaya_keselamatan_pasien_di_rumah_sakit (diakses 13 Mei 2023)

Andriani, M., & Widiawati, K. (2017). Penerapan Motivasi Karyawan Menurut Teori Dua Faktor Frederick Herzberg Pada PT Aristika Kreasi Mandiri. *Journal Admistrasi Kantor*, *5*(1), 83–98.

Bozak, M. (2003). Using Lewin's Force Field Analysis in Implementing a Nursing Information System. *Computers, Informatics, Nursing : CIN*, *21*, 80–85; quiz 86. https://doi.org/10.1097/00024665-200303000-00008

Cheraghi, R., Ebrahimi, H., Kheibar, N., & Sahebihagh, M. H. (2023). Reasons for resistance to change in nursing: an integrative review. *BMC Nursing*, *22*(1), 1–9. https://doi.org/10.1186/s12912-023-01460-0

DuBose, B. M., & Mayo, A. M. (2020). Resistance to change: A concept analysis. *Nursing Forum*, *55*(4), 631–636. https://doi.org/10.1111/nuf.12479

Ghofar, A., Lestari, I., & Ibnu, F. (2021). Manajemen Budaya Keselamatan Dalam Meningkatkan Mutu Pelayanan Pasien. *JURNAL EDUNursing*, *5*(2), 142–150. http://journal.unipdu.ac.id

Heriyati, H., Al-Hijrah, M. F., & Masniati, M. (2019). Budaya Keselamatan Pasien Rumah Sakit

Umum Daerah Majene. *Window of Health : Jurnal Kesehatan*, *2*(3), 194–205. https://doi.org/10.33368/woh.v0i0.145

Jacobus, D. W. C., Setyaningsih, Y., & Arso, S. P. (2022). Analisis Pengaruh Budaya Keselamatan Pasien, Budaya Organisasi, Dan Lingkungan Yang Mendukung Terhadap Motivasi Melaporkan Insiden Keselamatan Pasien-Systematic Riview. *An-Nadaa Jurnal Kesehatan Masyarakat*, *9*(2), 157. https://doi.org/10.31602/ann.v9i2.6842

Karmila, K., Suharni, S., & Muhammad, K. A. (2023). Hubungan Budaya Keselamatan Pasien dengan Pelaporan Insiden Keselamatan Pasien oleh Perawat di Instalasi Rawat Inap Rumah Sakit TK II Pelamonia Makassar. *Journal of Muslim Community Health*, *4*(1), 181–189. https://doi.org/10.52103/jmch.v4i1.1153JournalHomepage:https://pasca-umi.ac.id/index.php/jmch

Kesatria Pratama, M. I. (2021). Penerapan Budaya Keselamatan Pasien Sebagai Upaya Pencegahan Adverse Event : Literature Review. *JKM : Jurnal Keperawatan Merdeka*, *1*(2), 169–182. https://doi.org/10.36086/jkm.v1i2.999

Lachman, P., Brennan, J., Fitzsimons, J., Jayadev, A., & Runnacles, J. (2022). The economics of patient safety from analysis to action. *Oxford Professional Practice: Handbook of Patient Safety*, *145*, 43–54. http://www.oecd.org/health/health-systems/Economics-of-Patient-Safety-October-2020.pdf

Maesa, R. P., Herliza, M., & Harmen, E. L. (2024). Analisis Penerapan Budaya Keselamatan Pasien di Rumah Sakit Islam Ibnu Sina Simpang Empat Tahun 2023. *Journal of Public Administration and Management Studies*, *2*(1), 20–26.

Marselina;, E. V. P. I. I. (2023). *Dimensi Budaya Keselamatan Pasien dan Insiden Keselamatan Pasien di RS X Kota Malang Elystia*. *14*(April), 275–279.

Martínez-Costa, M., Jiménez-Jiménez, D., & Dine Rabeh, H. A. (2019). The effect of organisational learning on interorganisational collaborations in innovation: an empirical study in SMEs. *Knowledge Management Research and Practice*, *17*(2), 137–150. https://doi.org/10.1080/14778238.2018.1538601

Permenkes No. 24. (2022). Peraturan Menteri Kesehatan RI No 24 tahun 2022 tentang Rekam Medis. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 24 Tahun 2022*, *151*(2), 1–19.

Pujilestari, A., Maidin, A., & Anggraeni, R. (2016). Patient Safety Culture in Inpatient Installation of Dr. Wahidin Sudirohusodo Hospital, Makassar City. *Managemen Keperawatan*, *1*(2), 156–165.

Rachmawati, E. (2011). Model Pengukuran Budaya Keselamatan Pasien Di Rs Muhammadiyah-'Aisyiyah Tahun 2011. *Fakultas Ilmu-Ilmu Kesehatan Universitas Muhammadiyah Prof. DR. Hamka*, 11–34.

Richter, J. P., McAlearney, A. S., & Pennell, M. L. (2016). The influence of organizational factors on patient safety: Examining successful handoffs in health care. *Health Care Management Review*, *41*(1), 32–41. https://doi.org/10.1097/HMR.0000000000000033

Sari, D. W., Rosyidah, R., & Rulyandari, R. (2024). Penerapan Budaya Keselamatan Pasien Di Rumah Sakit, Implementation of Patient Safety Culture in Hospitals. *Afiasi : Jurnal Kesehatan Masyarakat*, *8*(3), 527–539. https://doi.org/10.31943/afiasi.v8i3.316

Sibarani, I. H. (2020). *Kegagalan dalam Menerapkan Budaya Keselamatan Pasien di Rumah Sakit*. https://osf.io/preprints/6fqvm/

Sulastri et al. (2020). Evaluasi Penerapan Budaya Keselamatan Pasien di Rumah Sakit Swasta. *Jurnal Manajemen Kesehatan Yayasan RS. Dr. Soetomo*, *5 No. 1*, 1–8. https://osf.io/9ztyg/download

Syilfi, Ispriyanti, D., & Safitri, D. (2012). Analisis Regresi Linier Piecewise Dua Segmen. *Jurnal Gaussian*, *1*(1), 219–228.

Utami, K. C., Jak, Y., & Pangkey, D. Y. (2023). Pengaruh Budaya Keselamatan Pasien Terhadap Sikap Melaporkan Insiden Keselamatan Pasien di Rumah Sakit Mandaya Karawang. *Jurnal Manajemen Dan Administrasi Rumah Sakit Indonesia (MARSI)*, *7*(2), 125–136. https://doi.org/10.52643/marsi.v7i2.3035

Wahyuda O, Putu GDS, Ketut AA, & Putu AJS. (2024). Analisis Faktor-Faktor yang Berhubungan dengan Budaya Keselamatan Pasien di Rumah Sakit. *Jurnal Keperawatan*, *16*(1), 27–36.

Wianti, A., Setiawan, A., Murtiningsih, M., Budiman, B., & Rohayani, L. (2021). Karakteristik dan Budaya Keselamatan Pasien terhadap Insiden Keselamatan Pasien. *Jurnal Keperawatan Silampari*, *5*(1), 96–102. https://doi.org/10.31539/jks.v5i1.2587

Wulandari, H., Setyaningsih, Y., & Musthofa, S. B. (2023). Literature Review: Budaya Lapor untuk Meningkatan Keselamatan Pasien di Rumah Sakit Umum Daerah. *Malahayati Nursing Journal*, *5*(7), 2033–2050. https://doi.org/10.33024/mnj.v5i7.8937